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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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07/09/2001

Kazuhiro Asada

110064

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08/10/2004

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EXAMINER

KIM, RICHARD H

ART UNIT

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Please find below and/or attached an Office communication concerning this application or proceeding.



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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/899,919  
Filing Date: July 09, 2001  
Appellant(s): ASADA, KAZUHIRO

**MAILED**  
AUG 10 2004  
**GROUP 2800**

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James A. Oliff  
Gerhard W. Thielman  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed May 26, 2004.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

The rejection of claims 1-4 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

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**(8) Claims Appealed**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) Prior Art of Record**

5,452,386	van Woesik	9-1995
6,174,091 B1	Herrmann	1-2001

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over van Woesik (US 5,452,386) in view of Herrmann (US 6,174,091 B1).

Referring to claim 1, van Woesik discloses an optical connector comprising a housing having a cord receiving hole portion (see Fig. 7, ref. 4, 22, 24) and a mounting hole (see Fig. 7, ref. 33), the cord receiving hole portion receiving an optical fiber to be inserted along an axis of the optical fiber cord in a cord insertion direction (see Fig. 15, ref. 6), the mounting hole disposed along the cord receiving hole portion (see Fig. 7, ref. 33); and a stopper including a plate-like portion having a positioning slit (see Fig. 11, ref. 66, 67), the positioning slit having a

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width slightly smaller than a diameter of the optical fiber cord (see Fig. 19, ref. J, 65, 67; col. 5, lines 60-66), wherein the plate-like portion of the stopper can be inserted into the mounting hole along the cord receiving hole portion in a stopper insertion direction perpendicular to the cord insertion direction of the optical fiber cord (see Fig. 15, ref. 12); the housing has a stopper retaining portion for holding the plate-like portion of the stopper, the stopper retaining portions engaging a retaining side of the plate-like portion and having a cross-section perpendicular to the cord insertion direction of the optical fiber cord (see Fig. 11, ref. 70; col. 5, lines 67-68); and when the stopper is inserted into the mounting hole along the cord receiving hole portion, each of blade portions penetrates into a covering portion of the optical fiber cord, with the positioning slit being perpendicular to the axis of the optical fiber cord (see col. 5, lines 60-66; Fig. 19), thereby fixing the optical fiber along the axis of the optical fiber cord (see col. 5 lines 66-67). It is the position of the examiner that when the blade portion penetrates into a covering portion of the optical fiber, a portion of the covering portion would inherently be removed since the blade portion would effectively displace the area of the covering portion that was cut. However, the reference does not disclose blade portions, and each of the blade portions being formed by a side edge of the positioning slit joined at a right angle to a distal end edge of the plate-like portion.

Herrmann discloses blade portions (see Fig. 5, ref. 11).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to disclose blade portions in order to facilitate the ease in which the stopper can be inserted into the covering portion of the fiber. Moreover, it would have been obvious to one having ordinary skill in the art at the time the invention was made for the blade portions to be formed by a side edge of the positioning slit joined at a right angle to a distal end edge of the

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plate-like portion since it would have been an obvious matter of design choice to implement such a modification, since applicant has not disclosed that having the side edge of the positioning slit joined at a right angle to a distal end edge of the plate-like portion solves any states problem or is used for any particular purpose and it appears that the invention would perform equally well with the chaffered edge disclosed in Herrmann and van Woesik.

Referring to claim 2, van Woesik discloses a stopper including a pair of plate-like portions interconnected by an interconnecting piece portion in parallel relation to each other, so that the stopper has a generally U-shape when viewed from the side thereof (see Fig. 19, ref. 62, 66).

Referring to claim 3, van Woesik and Herrmann disclose the device previously recited. However, the references do not disclose that the side edge of the positioning slit for each of the blade portions projects a gable wedge having a cross-section corner along a thickness midline of the side edge for each of the blade portions, the cross-section corner extending towards the positioning slit.

It would have been obvious to one having ordinary skill in the art at the time the invention was made for the side edge of the positioning slit for each of the blade portions projects a gable wedge having a cross-section corner along a thickness midline of the side edge for each of the blade portions, the cross-section corner extending towards the positioning slit in order to provide a sharper blade edge since such a modification facilitates a sharp edge to improve the ease in which the stopper can be cut into the covering. Moreover, a blade, by definition is constructed to create a sharp edge along the edge in which cutting is to occur. As a

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result, such a modification provides no further advantage, purpose or function than that of the blade disclosed by Herrmann. As a result, such a modification would be functionally equivalent.

Referring to claim 4, van Woesik discloses a device wherein the distal end edge of the plate-like portion slants from a first cross-section face of the plate-like portion to a second cross-section of the plate-like portion (see Fig. 15, ref. 12).

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**(11) Response to Argument****Claims 1 and 2**

Appellant has three main arguments: (1) that the applied prior art, taken alone or in combination, does not teach or suggest the blade portions of the stopper having a right angle joining the side edge of the positioning slit and the distal end edge of the plate-like portion, (2) that the applied prior art does not teach or suggest that the housing has stopper retaining portions engaging a retaining side of the plate like portion and (3) that the applied prior art does not teach or suggest removing a portion of the covering portion.

Appellant's first argument is that neither van Woesik nor Herrmann, taken alone or in combination, teach or suggest that the blade portion of the clip, formed by a side of the positioning slit, is joined at a right angle to a distal end edge of the plate-like portion. For support, Appellant refers to Figure 11 of van Woesik and Figure 3 of Herrmann as illustrating chamfered limbs. Appellant contends that the chamfered limbs disclosed in van Woesik and Herrmann teaches away from the claimed invention.

First, Appellant argues that it is desirable to avoid radial compression of the optical fiber in the cord, citing that the chamfered limbs would squeeze against rather than cut through the covering portion, thereby causing fiber degradation. However, Examiner submits that contrary to Appellant's assertion, the chamfered limbs "cut" through the covering portion, which would therefore prevent such a "squeezing" force. As evidence, Examiner points to van Woesik, column 5, lines 64-65, where it is noted that the chamfered limbs, which are defined by the edges (65), "bite into the jacket J..." Herrmann further states that the chaffered limbs "pierce the insulating sheath of the fiber optic cable end" (col. 2, lines 47-48). Therefore, it is well



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suggested in both van Woesik and Herrmann that the chamfered edges cut through the covering portion.

Second, Examiner asserts that implementing a chamfered edge improves the ease of cutting by creating a sharp contact point between the fiber and the chamfered edge, allowing for quick penetration into the covering portion of the fiber. As the chamfered edge tapers upward, the cut is gradually completed. Removing such a chamfered edge would remove the sharp contact point, requiring a greater amount of force to cut the covering portion of the fiber.

Third, modifying the van Woesik clip by removing the chamfered edge, Appellant's claimed invention only removes the established advantage of the chamfered edge. In fact, a chamfered edge to create a cleaner cut is so well established (i.e. guillotine) that modifying the van Woesik and Herrmann stopper by removing the chamfered edge, as proposed by Appellant would actually be a step backward in the art. Thus, in that sense, it would have been obvious to one of ordinary skill in the art to recognize that the present invention is merely a reverse engineering approach to what is already established.

In Appellant's second argument, it is argued that while van Woesik includes retention pips to engage with the walls of the slots on the housing for securing the clip, the slot fails to include any means on the housing to secure the retention pips in place during insertion of the clip. However, Examiner submits that van Woesik explicitly states that the retention pips 70 engage the walls of the slots 33 (col. 5, lines 67-68). Therefore, in order for the retention pips 70 to engage the walls of the slots 33, the walls must equally engage the retention pips, and would therefore, require retaining portions. Without such engagement or retaining portions on the walls of the slots, the retention pips would be unable to engage the walls.

In Appellant's third argument, it is argued that the applied references fail to teach or suggest removing material from the cord covering. However, the claim language is silent as to removing "material from a cord covering", but only states that the "blade portion removes a portion of the covering portion". It is clearly illustrated in Fig. 19 of van Woesik and Figure 5 of Herrmann, that by piercing the covering portion of the optical fiber, the blade portions of the clip displace the covering portion, creating a cut. Therefore, portions of the covering portion are *removed* from the area that is now occupied by the blade.

### ***Claim 3***

Appellant argues that contrary to the claimed invention, van Woesik and Herrmann both provide flat edges through the thickness of the respective clips instead of the claimed gable wedge. As support, Appellant cites Figure 12 of van Woesik and Figure 4 of Herrmann as evidence that both van Woesik and Herrmann provide flat edges through the thickness of their respective clips. However, the illustrations only reveal the outside edge of the respective clips, and do not sufficiently show that both clips of Herrmann and van Woesik provide only flat edges. Examiner asserts that employing a gable wedge to provide a sharp edge is well established in the art to improve the ease of cutting. Both clips of van Woesik and Herrmann cut into the covering portion (van Woesik, col. 5, lines 64-65; Herrmann, col. 2, lines 47-58). Therefore, providing a gable wedge in order to facilitate the cutting would have been obvious to one having ordinary skill in the art.

### ***Claim 4***

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In response to Applicant's argument that neither van Woesik nor Herrmann disclose that the distal end edge of the plate-like portion slants from a first cross-section face of the plate-like portion to a second cross-section face of the plate like portion, Examiner asserts that Figure 19 illustrates a slant indicated by reference number 68, from a first cross-section face to a second cross-section face.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

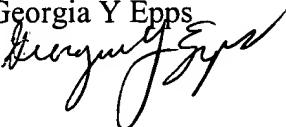
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RHK

August 4, 2004

Conferees

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